Montana Statewide Dropout and Graduate Report

2005-06 School Year

Office of Public Instruction
Linda McCulloch, Superintendent
PO Box 202501
Helena, MT 59620-2501

March 2007

Table of Contents

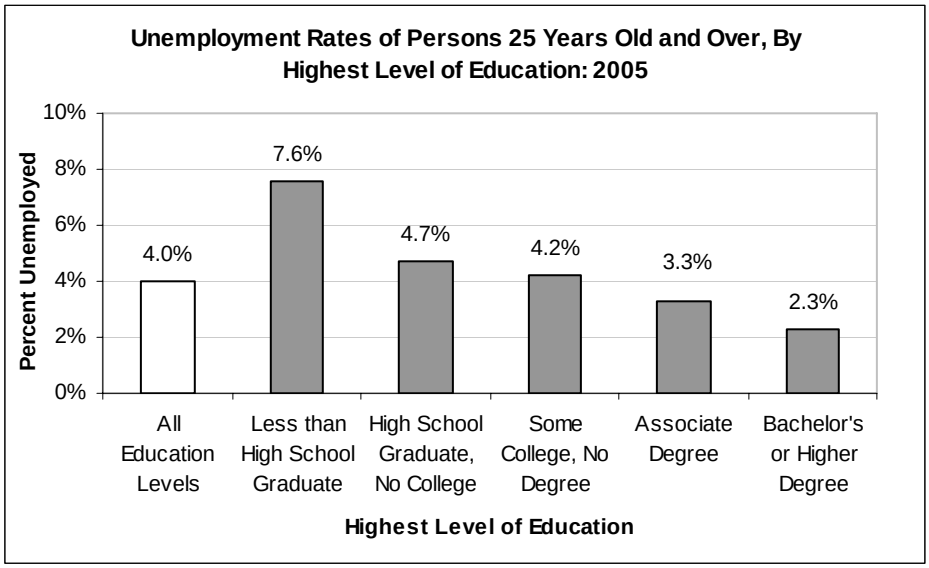
This report was prepared by the Office of Public Instruction, Measurement & Accountability Unit
Contact information can be obtained by calling Lindy Miller, (406) 444-6774 or e-mail, lindmiller@mt.gov.

Introduction

The Montana School Accreditation Standards (10.55.603, ARM) require schools to do follow-up studies of graduates and students no longer in attendance. This report provides information on students who graduated or dropped out of Montana public, state-funded and nonpublic, accredited schools during the 2005-06 school year.

The Impact of Dropping Out of School

Students who drop out of school face a bleak economic world to a much greater degree than youths in general. According to the Digest of Education Statistics, as of October 2004, 21 percent of the 2003-04 dropouts were unemployed. By way of comparison, only 16 percent of 2003-04 recent graduates not enrolled in college were unemployed. (NCES, 2005) As shown in the chart below, employment opportunities for high school dropouts continue to lag far behind their counterparts who attain a high school diploma or a college degree.



(Labor, 2005)

As recently as the 1970s, holding a high school diploma was considered an adequate, but not an essential, asset for entering the labor market. The technological advances of the last 30 years have fueled the demand for a more highly skilled work force. Employers increasingly require at least a high school diploma and look for employees with good communication, math and reading skills; computer skills; problem-solving and critical thinking; and the ability to work on a team. Dropouts who do manage to find employment can expect to earn approximately 28 percent less than the average salary of a high school graduate. (NCES, 2005)

Dropouts are three times as likely as high school completers that do not go on to college to receive public assistance. (NCES, 1998) Approximately one-third of female dropouts are pregnant and facing child-rearing responsibilities without an education or job experience to support their children adequately. (NEGP, 2001) In addition to these grim economic statistics, dropouts also make up a disproportionate percentage of the prison population, comprising 26.5 percent of federal prison population, 39.7 percent of the state prison population, and 46.5 percent of the local jail inmate population. (Justice, 2003) This is far costlier to both the individual and to society than a high school and/or college education.

Graduate and Dropout Definitions and Data Collections

Montana public, state-funded, and nonpublic, accredited schools are provided with the Montana Graduate and Dropout Data Collection Handbook that provides detailed instructions for collecting and reporting graduate and dropout data. Reports were received from all accredited schools for graduate and dropout data for the 2005-06 school year.

Traditionally, each fall schools report graduate data for all high schools and dropout data for grades 7 through 12 by gender and race/ethnicity categories for the previous school year. However, on January 8, 2002, President George Bush signed into law the reauthorization of the Elementary and Secondary Education Act (ESEA), otherwise known as the No Child Left Behind Act of 2001 (NCLB), which increases accountability for student academic achievement for all public schools. The Adequate Yearly Progress (AYP) of NCLB requires that public high and 7-8 schools disaggregate both dropout and graduate data not only by gender and race/ethnicity, but also by the following subgroups: economically disadvantaged, students with disabilities, limited English proficient, and migrant. In addition, public high schools must also report graduate data by whether or not graduates graduated "in the standard number of years" (i.e., "on-time").

Graduate Definitions and Data Collection
Montana accredited high schools report graduate numbers to the OPI each fall for the previous school year using the definition in the box to the right.

Dropout Definitions and Data Collection
Dropout rates can be calculated and reported in three different ways: event rates (snapshot of those who drop out in a single year), status rates (proportion of population who have not completed school and are not enrolled), and cohort rates (a more comprehensive picture which follows a sample group of students over time and generalizes their rate to a larger group). The collection method used in this report is an event rate adapted from the National Center for Education Statistics (NCES) at the U.S. Department of Education and is consistent with the requirements of the NCES Common Core of Data (CCD) reporting. This method has been used by Montana schools to report dropout data to the OPI since 1994-95.

Graduates are the count of individuals who:

1) completed the high school graduation requirements of a school district, including early graduates, during the previous school year,

or

2) completed the high school graduation requirements of a school district at the end of summer prior to the current school year.

General Education Development Test (GED) recipients **are not** counted as graduates.

Standard Number of Years (i.e., "On-time") Graduate is an individual who:

1) completes a district's graduation requirements in four years or less from the time an individual enrolled in the 9th grade,

or

2) has an Individualized Education Program (IEP) allowing for more than four years to graduate.

and

3) have not graduated from high school or completed a state or district-approved high school educational program,

and

4) have not transferred to another school, been temporarily absent due to a school-recognized illness or suspension, or died.

Data Limitations
Because the number of students enrolled for small schools and racial minority groups is relatively low, small annual changes in data can cause wide variations in annual completion, graduation, and dropout rates. For example, in a class with 10 students, one dropout would translate to a 10 percent dropout rate. A more realistic indicator for small schools and racial minority groups is an average of several years.

Currently, Montana is in the process of developing a student information system and will be able to track individuals across schools and school years in the future. Until this system is functioning fully, the OPI will collect aggregate enrollment, graduate, and dropout counts each fall from schools. This carries with it the risk of misclassification of student data (i.e., reporting a student's race/ethnicity inconsistently between enrollment and dropout data collections, or reporting a transfer student as a dropout).

Analysis of Montana 2005-06 Dropout Rates

Calculating a Dropout Rate

Dropout rates are calculated by dividing the number of dropouts as defined above by the October enrollment total. Dropout rates vary for disaggregated student groups (i.e., race/ethnicity, gender). Calculating and analyzing disaggregated dropout rates is key in determining if certain groups of students are more likely to drop out and can be used in developing and targeting dropout prevention efforts.

Dropout Rate Formula

Dropout Rate = Number of dropouts/October enrollment X 100

Example:
The 2005-06 Dropout Rate for Montana Accredited Schools = 1,824 Dropouts for grades 7 through 12 divided by 72,461 students enrolled in October 2005 multiplied by 100 = 2.5%

2005-06 Montana Statewide Dropout Rate Summary

- ✓ Montana accredited schools reported that 1,824 students dropped out of grades 7 through 12 during the 2005-06 school year. The corresponding October enrollment was 72,461 yielding a dropout rate of 2.5 percent for the 2005-06 school year (see Table 1 on following page).
  - The 2005-06 dropout rate for Montana grades 7 and 8 was relatively low (0.2 percent), but represents 48 students leaving school at a very early age.
  - The 2005-06 dropout rate for Montana high schools was 3.6 percent.

- ✓ Peak dropout rates have traditionally been observed in 10th grade, when many students turn 16 and students can legally exit the school system. (Montana law states: "Except as provided in [Montana Code Annotated §20-5-102(2)], any parent, guardian, or other person who is responsible for the care of any child who is 7 years of age or older prior to the first day of school in any school fiscal year shall cause the child to be instructed in the program prescribed by the board of public education pursuant to 20-7-111 until the later of the following dates: (a) the child's 16th birthday; (b) the date of completion of the work of the 8th grade." Montana Code Annotated §20-5-102(1) (2001).) For the 2005-06 school year, however, peak dropout rates were observed in 11th grade with 12th grade not far behind.

- ✓ Males drop out of school at a higher rate than do females. Males represent 52 percent of the total school enrollment for grades 7 through 12 and 56 percent of the dropouts, whereas females represent 48 percent of the total school enrollment for grades 7 through 12 and 44 percent of the dropouts.

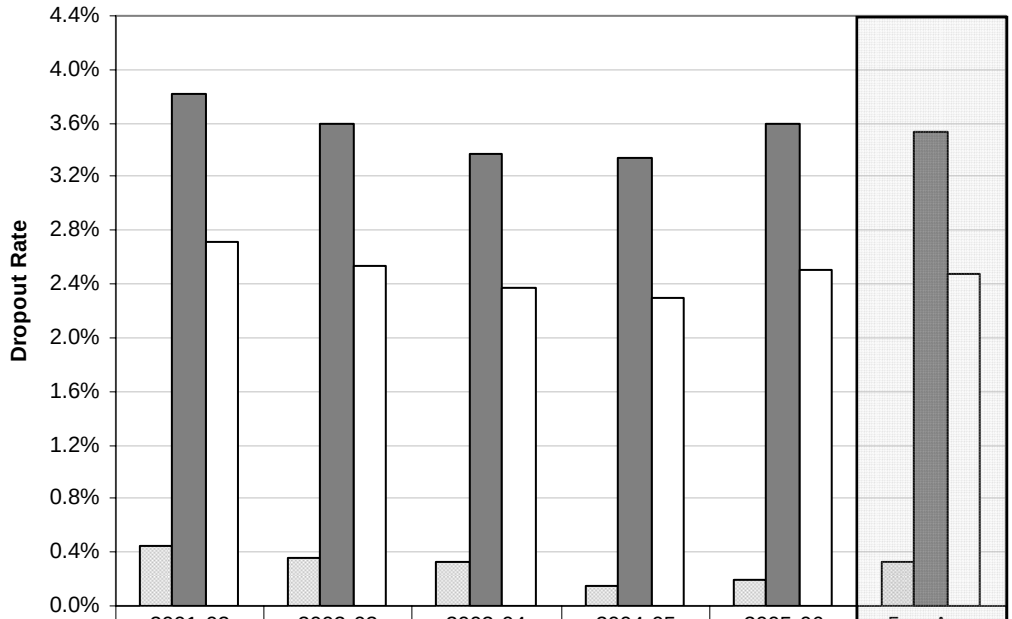
- ✓ For the 2005-06 school year, American Indian students represented 10.7 percent of the total school enrollment for grades 7 through 12, but account for 24.8 percent of the total dropouts.
  - The 2005-06 American Indian dropout rate for Montana grades 7 and 8 was 1.3 percent.
  - The 2005-06 American Indian dropout rate for Montana high schools was 8.2 percent.
  - After declining for the past five years, statewide dropout rates increased in 2005-06 school year. The steepest climbs were shown in the 9th and 11th grades. The American Indian Dropout rate stayed the same while the dropout rate went up for the White Race. See the section on the Dropout Rate by School Size on Page 15.

Table 1
2005-06 Montana Dropout Rate Summary

	Dropout Rates	Dropout Count	Enrollment
Overall Total	**2.5%**	**1,824**	**72,461**
HS Total	3.6%	1,776	49,145
Gr 12	4.1%	466	11,418
Gr 11	4.2%	494	11,711
Gr 10	3.3%	422	12,691
Gr 9	3.0%	392	13,114
Ungraded* HS	0.9%	2	211
7 & 8 Total	0.2%	48	23,316
Gr 8	0.2%	26	12,050
Gr 7	0.2%	22	11,238
Ungraded* 7-8	0.0%	0	28
Gender			
Male	2.7%	1,013	37,341
Female	2.3%	811	35,120
Race/Ethnicity			
American Indian	5.8%	453	7,780
Asian	0.8%	6	752
Hispanic	3.5%	53	1,535
Black	4.0%	19	480
Pacific Islander	0.8%	1	118
White	2.1%	1,292	61,796

* "A class that is not organized on the basis of grade grouping and has no standard grade designation." (NCES)

Figure 1: Montana Dropout Rates- 2001-02 to 2005-06

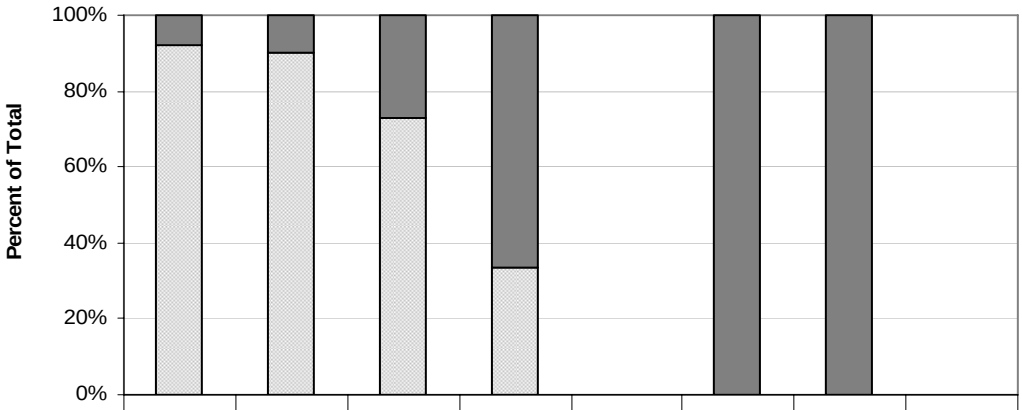


School Year	2001-02	2002-03	2003-04	2004-05	2005-06	5-yr Avg
Grades 7-8	0.4%	0.4%	0.3%	0.2%	0.2%	0.3%
High School	3.8%	3.6%	3.4%	3.3%	3.6%	3.5%
Overall	2.7%	2.5%	2.4%	2.3%	2.5%	2.5%

Distribution of Dropout Rates

Although statewide dropout rates are useful, they can disguise differences observed between various types of schools. Figures 2 and 3 show the distribution of 2005-06 dropout rates across Montana schools by percent of American Indian students enrolled. Although schools with 25 or more percent American Indian students enrolled represented 13% of the total schools serving grades 7 through 12, they accounted for 69% of the schools with dropout rates greater than 6 percent. Because small annual changes in the number of dropouts can cause wide variations in dropout rates for schools with low enrollments, schools with enrollments fewer than 40 students are excluded from this analysis.

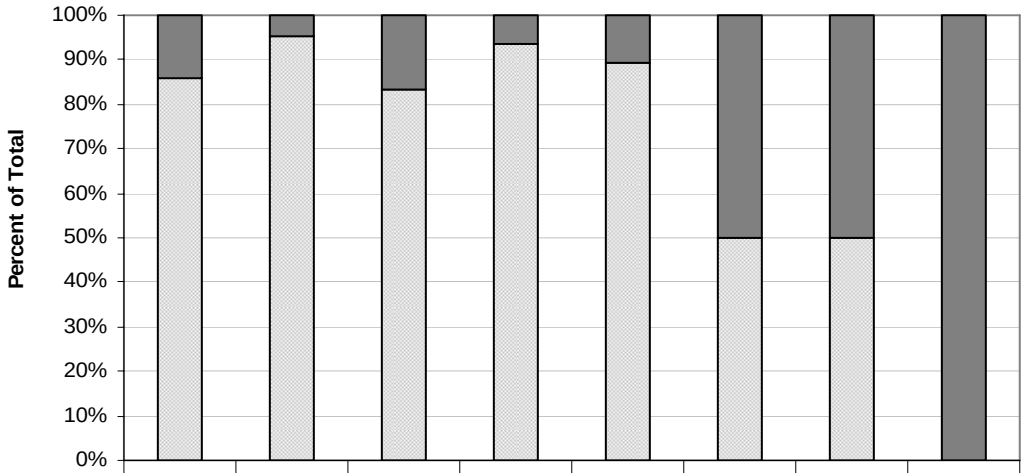
Figure 2: Distribution of 2005-06 Dropout Rates for Grades 7-8 for Montana Schools by Percent American Indian Enrollment



School Count by Percent American Indian Enrollment	Enrollment < 40 *	0%	0.1-1.5%	1.6-3.0%	3.1-4.5%	4.6-6.0%	6.1-10.0%	10.1% and above
		Dropout Rate Range						
>= 25% American Indian Enrollment	15	10	3	2	0	1	1	0
< 25% American Indian Enrollment	171	90	8	1	0	0	0	0

*Schools with enrollments fewer than 40 are excluded from analysis.

Figure 3: Distribution of 2005-06 Dropout Rates for Grades 9-12 for Montana Schools by Percent American Indian Enrollment



School Count by Percent American Indian Enrollment	Enrollment < 40 *	0%	0.1-1.5%	1.6-3.0%	3.1-4.5%	4.6-6.0%	6.1-10.0%	10.1% and above
		Dropout Rate Range						
>= 25% American Indian Enrollment	5	2	4	2	3	3	5	5
< 25% American Indian Enrollment	30	41	20	30	25	3	5	0

*Schools with enrollments fewer than 40 are excluded from analysis.

Dropout Rates for Disaggregated Student Populations

Since dropout rates can vary greatly between certain student populations, calculating and analyzing disaggregated dropout rates is key in developing and targeting dropout prevention strategies. The data collected by the OPI allows for the analysis of dropout rates by grade, gender, race/ethnicity, and various types of schools.

Dropout Rates by Gender

In Montana schools, more males than females are enrolled at every grade level. For the 2005-06 school year, about 52 percent of the total school enrollment for grades 7 through 12 was male and 48 percent was female. Males have also traditionally had higher dropout rates than females for most grade levels.

Analysis of Dropout Rates by Gender

- ✓ Consistent with previous years, the 2005-06 dropout rate for grades 9 through 12 for males, 3.9%, was greater than for females, 3.3% (see Table 2). Although the 9th grade dropout rate was the same for both males and females (3.0%); that was a 0.8% gain from the previous year for females.
- ✓ The 2005-06 dropout rate for grades 7 through 8 for males (0.2%) was the same for females.

Table 2
2005-06 Montana Dropout Rates by Grade and Gender

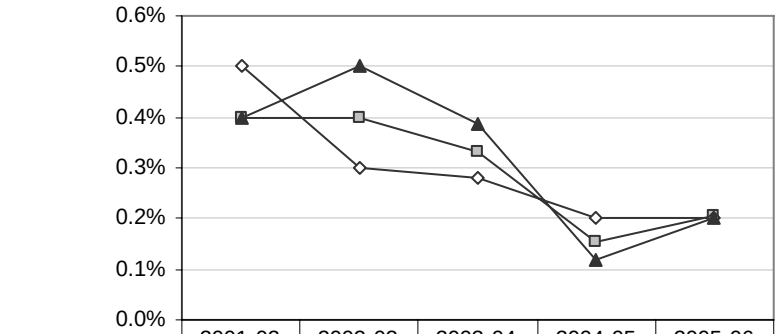
	Dropout Rates			Dropout Count			Enrollment		
Grade	Male	Female	Statewide	Male	Female	Statewide	Male	Female	Statewide
HS Total	3.9%	3.3%	3.6%	984	792	1,776	25,294	23,851	49,145
Grade 12	4.6%	3.6%	4.1%	270	196	466	5,923	5,495	11,418
Grade 11	4.6%	3.9%	4.2%	273	221	494	6,000	5,711	11,711
Grade 10	3.6%	3.0%	3.3%	236	186	422	6,491	6,200	12,691
Grade 9	3.0%	3.0%	3.0%	203	189	392	6,778	6,336	13,114
Ungraded* HS	2.0%	0.0%	0.9%	2	0	2	102	109	211
7 & 8 Total	0.2%	0.2%	0.2%	29	19	48	12,047	11,269	23,316
Grade 8	0.2%	0.2%	0.2%	15	11	26	6,201	5,849	12,050
Grade 7	0.2%	0.1%	0.2%	14	8	22	5,825	5,413	11,238
Ungraded* 7-8	0.0%	0.0%	0.0%	0	0	0	21	7	28
Overall Total	2.7%	2.3%	2.5%	1,013	811	1,824	37,341	35,120	72,461

- ✓ After declining for the past five years, statewide dropout rates increased in the 2005-06 school year. The sharpest increases were in the 9th and 11th grades. In the 9th grade the female's dropout rate increased 0.8% while the male dropout rate only increased 0.1%. In the 11th grade the female dropout rate increased 0.4% and the male dropout rate increased 0.5%. Overall the 9-12 dropout rate for males increased at a faster rate than for females. For males the dropout rate increased 0.3% while it increased 0.2% for females. It is unclear at this time, however, whether this increase is due to improved dropout data collection procedures and increased emphasis placed on dropout data with regards to new federal accountability requirements for public high schools (see Table 3 and Figures 4 and 5 on the following page).

Table 3
Montana Dropout Rates by Grade Level and Gender for Five Years

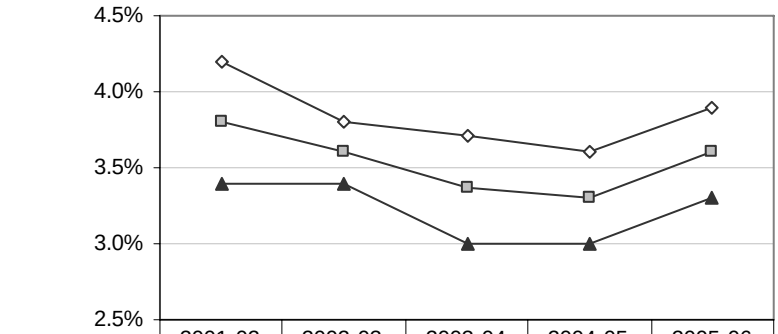
	Dropout Rates						Dropout Count					
	2001-02	2002-03	2003-04	2004-05	2005-06	5-yr Avg	2001-02	2002-03	2003-04	2004-05	2005-06	5-yr Total
7 & 8 Total	0.4%	0.4%	0.3%	0.2%	0.2%	0.3%	110	90	81	37	48	366
Male	0.5%	0.3%	0.3%	0.2%	0.2%	0.3%	67	35	35	21	29	187
Female	0.4%	0.5%	0.4%	0.1%	0.2%	0.3%	43	55	46	16	19	179
HS Total	3.8%	3.6%	3.4%	3.3%	3.6%	3.5%	1,937	1,811	1,672	1,653	1,776	8,849
Male	4.2%	3.8%	3.7%	3.6%	3.9%	3.9%	1,104	991	952	919	984	4,950
Female	3.4%	3.4%	3.0%	3.0%	3.3%	3.2%	833	820	720	734	792	3,899
Overall Total	2.7%	2.5%	2.4%	2.3%	2.5%	2.5%	2,047	1,901	1,753	1,690	1,824	9,215
Male	3.0%	2.7%	2.6%	2.5%	2.7%	2.7%	1,171	1,026	987	940	1,013	5,137
Female	2.4%	2.4%	2.1%	2.1%	2.3%	2.3%	876	875	766	750	811	4,078

Figure 4: Dropout Rates by Gender for Grades 7-8
2001-02 to 2005-06



	2001-02	2002-03	2003-04	2004-05	2005-06
7 & 8 Total	0.4%	0.4%	0.3%	0.2%	0.2%
Male	0.5%	0.3%	0.3%	0.2%	0.2%
Female	0.4%	0.5%	0.4%	0.1%	0.2%

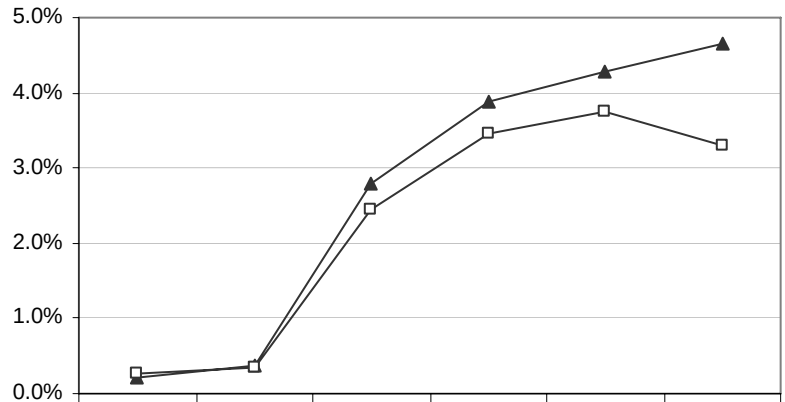
Figure 5: Dropout Rates by Gender for Grades 9-12
2001-02 to 2005-06



	2001-02	2002-03	2003-04	2004-05	2005-06
HS Total	3.8%	3.6%	3.4%	3.3%	3.6%
Male	4.2%	3.8%	3.7%	3.6%	3.9%
Female	3.4%	3.4%	3.0%	3.0%	3.3%

- ✓ As illustrated below in Figure 6, females drop out at a lower rate at every grade level than males except for in the 7th grade.
- ✓ Peak dropout rates for females are observed in 11th grade and then decrease for 12th grade. Dropout rates for males, however, increase steadily through grade 12.

Figure 6: Five-Year Dropout Rates by Gender and Grade
2001-02 to 2005-06



	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Male	0.2%	0.4%	2.8%	3.9%	4.3%	4.6%
Female	0.3%	0.3%	2.5%	3.5%	3.8%	3.3%

Dropout Rates by Race/Ethnicity Categories

Dropout rates vary by race/ethnicity categories and for some minority groups are higher than the dropout rates for white students. For the 2005-06 school year, Montana school enrollment for grades 7 through 12 included 85.3% White students, 10.7% American Indians, 1.0% Asians, 2.1% Hispanics, 0.7% Blacks, and 0.2% Hawaiian/Pacific Islanders. Because the enrollment of some minority groups is low, annual dropout rates for these groups may vary widely from year to year. Averages of a period of years are more realistic indicators of the dropout rates.

Analysis of Dropout Rates by Race/Ethnicity Categories

- ✓ Consistent with previous years, the 2005-06 dropout rate for the "American Indian" race/ethnicity category was considerably greater than the statewide average and that of the "White" category (see Table 4).

Table 4

2005-06 Montana Dropout Rates by Race/Ethnicity Categories

	Dropout Rates			Dropout Count			Enrollment		
	Grades 7-8	Grades 9-12	Total	Grades 7-8	Grades 9-12	Total	Grades 7-8	Grades 9-12	Total
American Indian	1.3%	8.2%	5.8%	35	418	453	2,684	5,096	7,780
Asian	0.0%	1.1%	0.8%	0	6	6	191	561	752
Hispanic	0.0%	5.2%	3.5%	0	53	53	520	1,015	1,535
Black	0.5%	6.0%	4.0%	1	18	19	182	298	480
Pacific Islander	0.0%	1.3%	0.8%	0	1	1	41	77	118
White	0.1%	3.0%	2.1%	12	1,280	1,292	19,698	42,098	61,796
Overall	0.2%	3.6%	2.5%	48	1,776	1,824	23,316	49,145	72,461

- ✓ For the 2005-06 school year the combined race/ethnicity categories of Asian, Hispanic, Black, and Pacific Islander only accounted for 79 dropouts from grades 7 through 12. The corresponding October enrollment was 2,885, yielding a dropout rate of 2.7%. Because the number of students enrolled for these race/ethnicity categories is low, annual dropout rates often vary widely from year to year, even when totaled at the state level. An average dropout rate utilizing dropout and enrollment data from multiple years is a more accurate indicator for these small groups (see Table 5).
- ✓ On average American Indian students drop out of grades 7 and 8 at a rate more than 9 times that of white students and out of high school at a rate of 2.5 times that of white students.

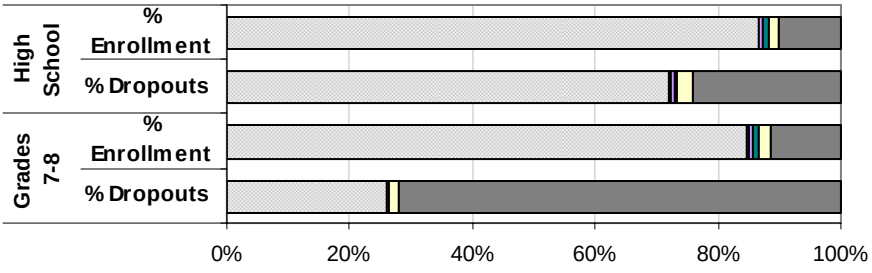
Table 5

Montana Dropouts by Race/Ethnicity Categories for Five Years

	7th & 8th Grade Dropout Rates						High School Dropout Rates					
Category	2001-02	2002-03	2003-04	2004-05	2005-06	5-yr Avg	2001-02	2002-03	2003-04	2004-05	2005-06	5-yr Avg
American Indian	2.7%	2.3%	2.2%	0.9%	1.3%	1.9%	10.0%	8.1%	8.1%	8.4%	8.2%	8.6%
Asian	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	1.2%	1.8%	1.7%	1.1%	1.5%
Hispanic	0.5%	0.4%	0.2%	0.2%	0.0%	0.2%	5.1%	6.0%	5.1%	4.3%	5.2%	5.1%
Black	0.0%	0.0%	0.6%	0.0%	0.5%	0.2%	6.5%	3.8%	5.9%	2.2%	6.0%	4.8%
Pacific Islander	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	3.0%	3.6%	3.0%	1.3%	2.7%
All Minority	2.1%	1.8%	1.7%	0.7%	1.0%	1.5%	8.6%	7.1%	7.1%	6.8%	7.0%	7.4%
White	0.2%	0.1%	0.1%	0.0%	0.1%	0.1%	3.1%	3.1%	2.8%	2.7%	3.0%	3.0%
Statewide	0.4%	0.4%	0.3%	0.2%	0.2%	0.3%	3.8%	3.6%	3.4%	3.3%	3.6%	3.5%

- ✓ In the past five years, American Indians represented only 11.5% of the total school enrollment for grades 7 through 8, but accounted for 71.9% of the dropouts. For grades 9 through 12, American Indians represented 10.0% of the total school enrollment and 24.0% of the dropouts (see Figure 7).

Figure 7: Dropout & Enrollment Race/Ethnicity Origins as Percent of Total- 2001-02 to 2005-06 Combined

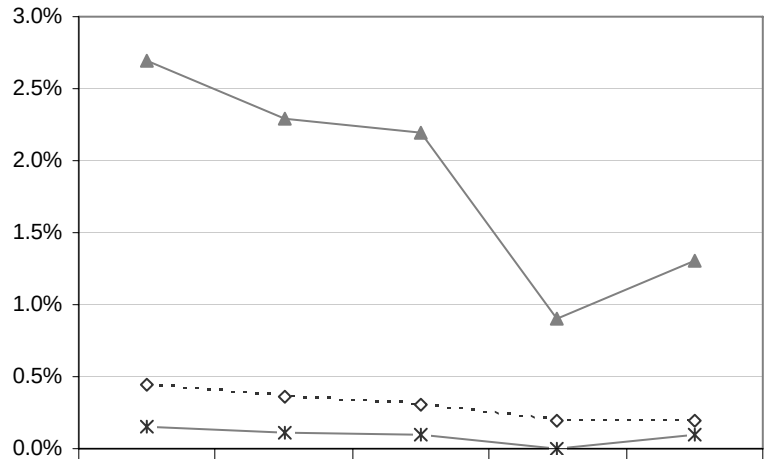


	Grades 7-8		High School	
	% Dropouts	% Enrollment	% Dropouts	% Enrollment
American Indian	71.9%	11.5%	24.0%	10.0%
Hispanic	1.6%	2.0%	2.7%	1.8%
Asian	0.0%	0.9%	0.4%	1.0%
Black	0.5%	0.7%	0.7%	0.5%
Pacific Islander	0.0%	0.1%	0.1%	0.1%
White	26.0%	84.8%	72.1%	86.5%

A Closer Look at American Indian Dropout Rates

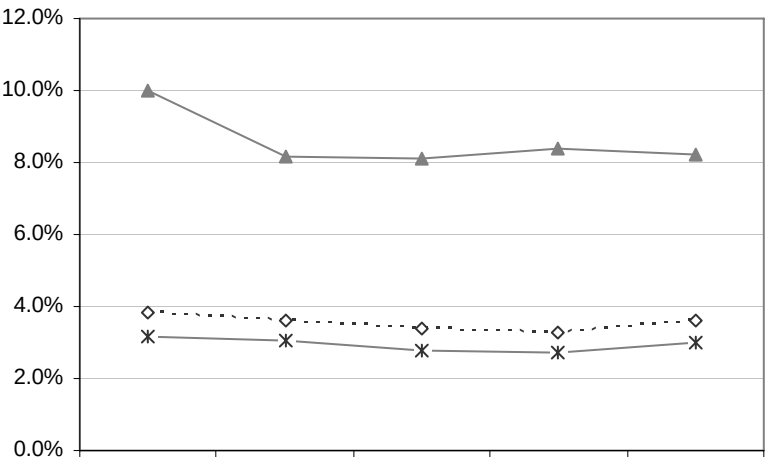
- ✓ Montana has seven Indian reservations and one landless tribe, therefore the "American Indian" race/ethnicity category represents the largest minority group in the state.
- ✓ For the past few years, Montana high school dropout rates, including those for American Indians, have been on the decline. For the 2005-06 school year American Indian dropout rates increased slightly at the 7-8 level but decreased at the high school level after a one year increase. White dropout rates increased at both the 7-8 and the 9-12 levels during the 2005-06 school year; marking the first time since the 2000-01 school year that the dropout rate has increased for White students at the 9-12 level. It is also the steepest increase, for White high school dropout rates, in the last ten years.

Figure 8: Dropout Rates for Select Race/Ethnicity Categories for Grades 7-8 2001-02 to 2005-06



	2001-02	2002-03	2003-04	2004-05	2005-06
American Indian	2.7%	2.3%	2.2%	0.9%	1.3%
White	0.2%	0.1%	0.1%	0.0%	0.1%
Statewide	0.4%	0.4%	0.3%	0.2%	0.2%

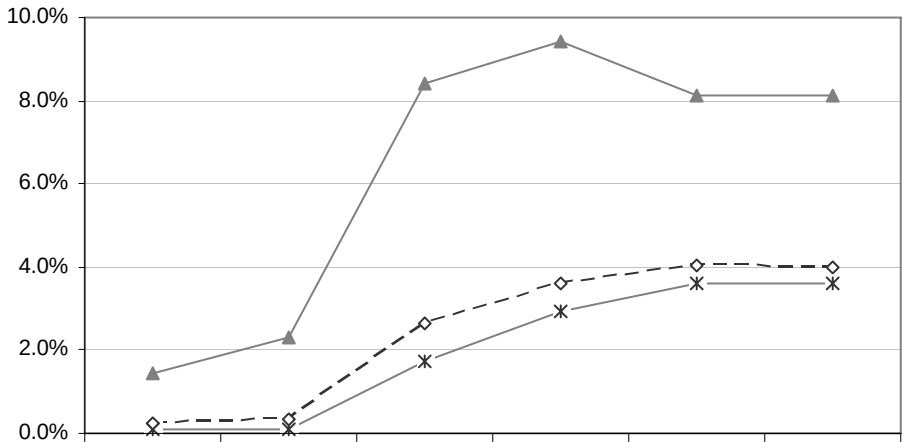
Figure 9: Dropout Rates for Select Race/Ethnicity Categories for Grades 9-12 2001-02 to 2005-06



	2001-02	2002-03	2003-04	2004-05	2005-06
American Indian	10.0%	8.1%	8.1%	8.4%	8.2%
White	3.1%	3.1%	2.8%	2.7%	3.0%
Statewide	3.8%	3.6%	3.4%	3.3%	3.6%

- ✓ As illustrated below in Figure 10, white students drop out at a much lower rate at every grade level than American Indian students. Peak dropout rates for whites are observed around the 11th and 12th grades, whereas, dropout rates for American Indians peak a year earlier in grade 10. Numerically American Indians dropout the most in the 9th and whites in the 11th grade.

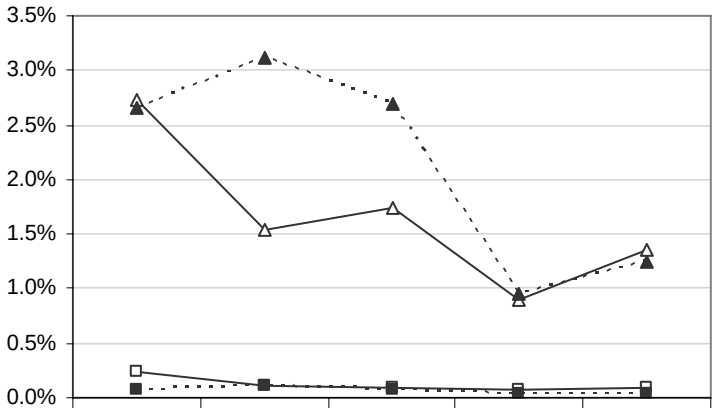
Figure 10: Five-Year Dropout Rates by Grade for Select Race/Ethnicity Categories 2001-02 to 2005-06



	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
American Indian	1.4%	2.3%	8.4%	9.4%	8.1%	8.1%
White	0.1%	0.1%	1.7%	2.9%	3.6%	3.6%
Overall	0.2%	0.4%	2.6%	3.6%	4.0%	4.0%

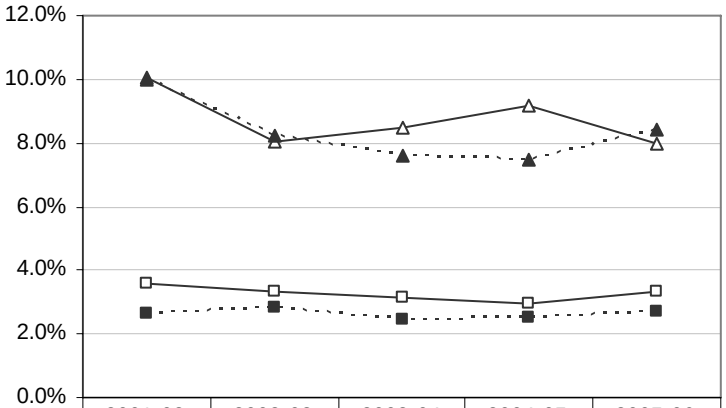
- ✓ Although in general males drop out of school at a higher rate than do females, this gender difference is not observed for the American Indian population at the grade 7-8 level. As illustrated in Figure 11, for the past five years, American Indian females have dropped out at a higher rate than males in three of the five years. In two of those years the gap was over one percentage point. Figure 12 shows that the 9-12 American Indian female dropout rate had been declining over the last five years, until the 2005-06 school year where it sharply increased, over taking the rate for American Indian males for the first time since the 2002-03 school year. The rate for American Indian males decreased sharply in 2002-03, then increased, steadily, for two years, and then sharply decreased in 2005-06. Overall the American Indian dropout rate has decreased by almost two full percentage points over the past five years.
- ✓ On the other hand the dropout rates for whites have stayed about the same with both genders showing increase during the 2005-06 school year. The gap between white males and white females has never gotten closer than 0.4% and has been as high as 0.9%. The gap this year, 0.7%, is as wide as it has been since the 2002-03 school year when it was 0.9%.

Figure 11: Dropout Rates for Select Race/Ethnicity Categories by Gender for Grades 7-8 2001-02 to 2005-06



	2001-02	2002-03	2003-04	2004-05	2005-06
American Indian Male	2.7%	1.5%	1.7%	0.9%	1.4%
American Indian Female	2.6%	3.1%	2.7%	1.0%	1.3%
White Male	0.2%	0.1%	0.1%	0.1%	0.1%
White Female	0.1%	0.1%	0.1%	0.0%	0.0%

Figure 12: Dropout Rates for Select Race/Ethnicity Categories by Gender for Grades 9-12 2001-02 to 2005-06

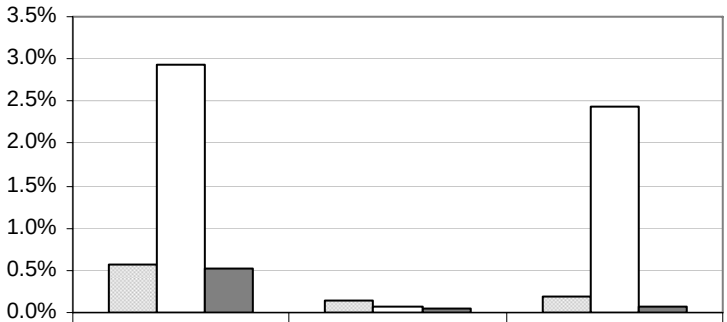


	2001-02	2002-03	2003-04	2004-05	2005-06
American Indian Male	10.1%	8.1%	8.5%	9.2%	8.0%
American Indian Female	10.0%	8.2%	7.6%	7.5%	8.4%
White Male	3.6%	3.3%	3.1%	2.9%	3.4%
White Female	2.7%	2.8%	2.4%	2.5%	2.7%

- ✓ During the 2001-02 through 2005-06 school years for grades 7 through 12, 58.3% of Montana's American Indian students were enrolled in a district with an enrollment made up of 50% or more American Indian students; 20.6% were enrolled in an "urban" school, defined as a school belonging to one of the state's seven largest school systems (Billings, Bozeman, Butte, Great Falls, Helena, Kalispell, and Missoula); the remaining 21.0% were enrolled in non-urban/less than 50% American Indian enrollment districts.

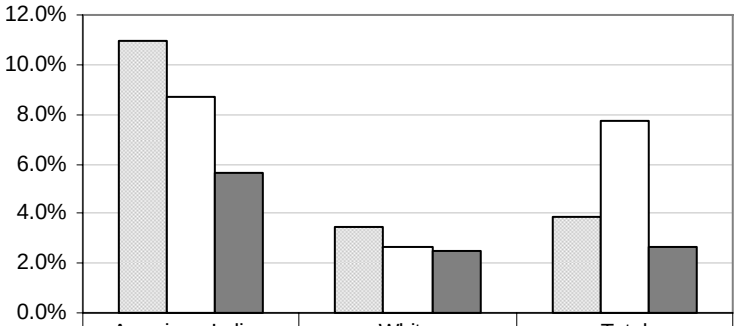
- ✓ As illustrated below in Figure 13, the five-year dropout rate for grades 7 through 8 was considerably higher (2.9%) for schools in a district made up of more than 50% American Indian students than for urban (0.6%) and non-urban/less than 50% American Indian enrollment districts (0.5%). These figures declined from last year's report across all school locations except for urban.
- ✓ As illustrated in Figure 14, the five-year dropout rate for grades 9 through 12 was much higher for urban schools (10.9%); than in a district with an enrollment of more than 50% American Indian students (8.7%) and non-urban/less than 50% American Indian enrollment districts (5.7%). The dropout rate sharply increased for American Indian students living in the seven largest districts this year while decreasing for the American Indian students in schools with more than and less than 50% American Indian enrollment.

Figure 13: Five-Year Dropout Rates for Select Race/Ethnicity Categories by School Location for Grades 7-8
2001-02 to 2005-06



	American Indian	White	Total
Urban	0.6%	0.2%	0.2%
Over 50% American Indian	2.9%	0.1%	2.4%
Non-Urban/<50%	0.5%	0.1%	0.1%

Figure 14: Five-Year Dropout Rates for Select Race/Ethnicity Categories by School Location for Grades 9-12
2001-02 to 2005-06



	American Indian	White	Total
Urban	10.9%	3.5%	3.9%
Over 50% American Indian	8.7%	2.7%	7.7%
Non-Urban/<50%	5.7%	2.5%	2.6%

Dropout Rate by Size of District

For the purposes of comparing similarly sized school districts, Montana districts have been identified by size categories based on enrollment numbers.

Category- Elementary Enrollment	Category- High School Enrollment	Category- K-12 Districts
1E= more than 2,500 students	1H= more than 1,250 students	1K= 400 or more students
2E= 851 to 2,500 students	2H= 401 to 1,250 students	2K= 399 or fewer students
3E= 401 to 850 students	3H= 201 to 400 students	
4E= 151 to 400 students	4H= 76 to 200 students	
5E= 41 to 150 students	5H= 75 or fewer students	
6E= 40 or fewer students		

Analysis of Dropout Rates by School District Size

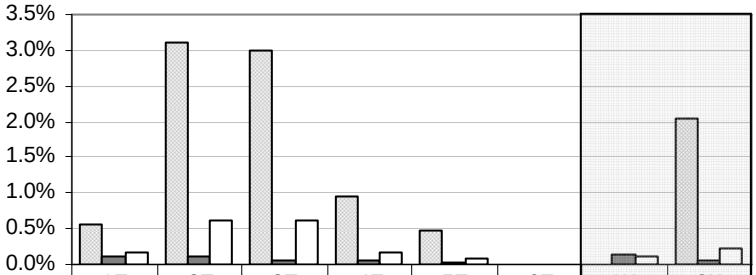
- ✓ The highest dropout rates for grades 7 through 8 are observed for 2E and 3E districts with enrollments between 851 to 1,250 students and districts with enrollments between 401 and 850 students. Interestingly, 2E and 3E districts have the highest percent American Indian enrollment at 17.3% and 18.9% respectively (see Table 6 and Figure 15 on following page).
- ✓ As illustrated in Table 6, on average at the high school level, smaller school districts have lower dropout rates than do larger districts, with the highest dropout rates being observed for 1H districts with enrollments larger than 1,250 students.
- ✓ The above trend is not observed when data are disaggregated by race/ethnicity. Unlike the "White" race/ethnicity category, American Indian dropout rates at the high school level remain consistently high amongst the various district size categories (see Figure 16 on following page) with the dropout rates the highest at 1H districts.
- ✓ For over the past five years the 1H dropout rate for American Indian students is 2.5 percentage points higher than at the 2H districts.
- ✓ Last year the five-year gap between the 1H and the 2H Schools for American Indian students was only 0.5 percentage points.
- ✓ American Indian dropout rates increased for 1H districts while declining for all other high school size categories in the past year.
- ✓ The dropout rate for 1H districts increased by a full percentage point (3.4% to 4.4%) from the 2004-05 to 2005-06 school year. However, the five-year average rate for 1H districts stayed the same.
- ✓ All of the 1H districts in the state showed steep increases in the number of dropouts over the 2004-05 school year. The five-year average went from 10.0% to 10.9% for American Indian Students but declined for white students from 3.6% to 3.5%.
- ✓ Six out of the seven 1H districts showed a double digit, percentage, increase in their dropout number over the 2004-05 school year. Kalispell/Flathead County High School was the lone exception.
- ✓ Four districts showed more than a 25% increase. Great Falls increased 68%, Bozeman 49%, Butte 35% and Billings 29% in the number of dropouts compared to the 2004-05 school year.
- ✓ For the districts where the numbers were statistically significant, American Indian 9-12 dropouts increased 77% in the Great Falls High School district and 47% in the Billings High School district.
- ✓ At the grade level the sharpest increases were noticed in the 9th grade. The number of 1H dropouts in the 9th grade increased 36%; 52% for American Indian students.
- ✓ Billings and Great Falls districts showed the biggest increases. The Billings High School district showed an increase of 85%, 109% for American Indian students, Great Falls showed an increase of 35%, 26% for American Indian students, in their 9th grade dropouts.

Table 6

Montana Dropout Rate by School District Size

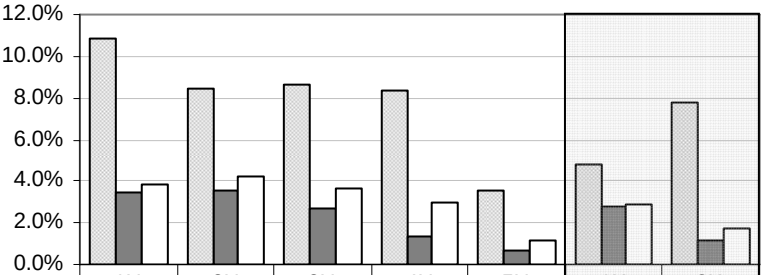
Level	1E,1H	2E,2H	3E,3H	4E,4H	5E,5H	6E	1K	2K	All Schools
7/8 dropouts									
2005-06 rate	0.1%	0.5%	0.3%	0.1%	0.1%	0.0%	0.0%	0.1%	0.2%
2004-05 rate	0.1%	0.1%	0.5%	0.1%	0.1%	0.0%	0.0%	0.2%	0.2%
2003-04 rate	0.2%	0.7%	0.7%	0.1%	0.0%	0.0%	0.1%	0.4%	0.3%
2002-03 rate	0.1%	0.9%	0.7%	0.1%	0.1%	0.0%	0.3%	0.4%	0.4%
2001-02 rate	0.2%	0.9%	0.8%	0.4%	0.1%	0.0%	0.3%	0.2%	0.4%
5-yr average rate	0.2%	0.6%	0.6%	0.2%	0.1%	0.0%	0.1%	0.2%	0.3%
HS dropouts									
2005-06 rate	4.4%	4.3%	2.9%	2.4%	0.7%	NA	2.4%	1.9%	3.6%
2004-05 rate	3.4%	4.6%	3.5%	2.7%	0.7%	NA	3.1%	1.7%	3.3%
2003-04 rate	3.6%	3.5%	3.7%	3.0%	2.4%	NA	3.5%	1.5%	3.4%
2002-03 rate	3.9%	4.2%	4.2%	2.9%	0.6%	NA	2.7%	1.9%	3.6%
2001-02 rate	4.2%	4.5%	4.0%	3.9%	1.0%	NA	2.5%	1.5%	3.8%
5-yr average rate	3.9%	4.2%	3.7%	3.0%	1.1%	NA	2.9%	1.7%	3.6%

Figure 15: Five-Year Dropout Rates by District Size Category for Select Race/Ethnicity Categories for Grades 7-8 2001-02 to 2005-06



	1E	2E	3E	4E	5E	6E	1K	2K
American Indian	0.6%	3.1%	3.0%	1.0%	0.5%	0.0%	0.0%	2.1%
White	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%
Overall	0.2%	0.6%	0.6%	0.2%	0.1%	0.0%	0.1%	0.2%

Figure 16: Five-Year Dropout Rates by District Size Category for Select Race/Ethnicity Categories for Grades 9-12 2001-02 to 2005-06



	1H	2H	3H	4H	5H	1K	2K
American Indian	10.9%	8.4%	8.6%	8.3%	3.6%	4.8%	7.7%
White	3.5%	3.5%	2.7%	1.4%	0.7%	2.8%	1.2%
Overall	3.9%	4.2%	3.7%	3.0%	1.1%	2.9%	1.7%

Other Types of Dropout Indicators— The Completion and Graduation Rate

The dropout rates identified thus far in this report are annual snapshots of grade-by-grade dropouts. The dropout data used to calculate those annual rates can be used in conjunction with graduate data to build a "synthetic" high school completion rate or "on-time" graduation rate for a specific class of students, even though each student is not followed through high school.

The Completion Rate

The National Center for Education Statistics (NCES) developed a formula as a practical way to calculate a completion rate after studying a variety of calculation methods. This estimated cohort method utilizes both dropout and graduate data and can be calculated for all accredited schools, but does require data from four consecutive years.

Completion Rate Formula

Completion Rate = $c_t / (c_t + d^{12}_t + d^{11}_{(t-1)} + d^{10}_{(t-2)} + d^{9}_{(t-3)})$

Where:

c= number of graduates receiving a standard high school diploma + nonstandard graduates + GED recipients through a school district administered program

t= year of graduation

d= dropouts

12, 11, 10, 9 = class level

Example:

The 2004-05 Completion Rate for Montana High Schools = 10,705 Graduates for Class of 2005 divided by (1,710 students dropped out over four years plus 10,705 Graduates for the Class of 2005) multiplied by 100 = 86.2 %

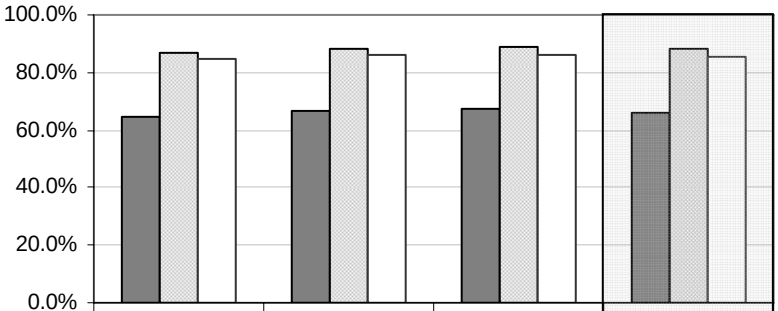
Analysis of Completion Rates

- ✓ The overall completion rate for the Class of 2006 was 86.2% (see Table 7 below).
- ✓ For the Class of 2005, females had a higher completion rate (87.3%) than males (85.2%).
- ✓ The race/ethnicity categories of Asian, Hispanic, Black, and Pacific Islander only accounted for 3.8% of the 2005-06 graduates and 4.3% of the dropouts over four years. Therefore, as with dropout rates, the completion rates for these race/ethnicity categories tend to vary widely from year to year.
- ✓ The Class of 2006 completion rate for the "American Indian" race/ethnicity category was considerably lower than the statewide completion rate and that of the "White" category.
- ✓ As illustrated on the following page in Figure 17, American Indian students had a three-year average completion rate of 66.3%, noticeably lower than the "White" average of 88.1 %.
- ✓ Completion rates for American Indian students have increased steadily for the past three years. Increased completion rates have also been observed for white students.

Table 7
2005-06 Montana Completion Rate Summary

	Dropouts					Graduates 2005-06	Completion Rate
	Grade 9 2002-03	Grade 10 2003-04	Grade 11 2004-05	Grade 12 2005-06	4-yr Dropout Total		
Overall Total	343	455	446	466	1,710	10,705	86.2%
Gender							
Male	185	250	250	270	955	5,508	85.2%
Female	158	205	196	196	755	5,197	87.3%
Race/Ethnicity							
American Indian	146	118	92	76	432	893	67.4%
Asian	0	3	1	3	7	135	95.1%
Hispanic	15	19	14	10	58	205	77.9%
Black	0	1	0	6	7	45	86.5%
Pacific Islander	0	0	2	0	2	25	92.6%
White	182	314	337	371	1,204	9,402	88.6%

Figure 17: Montana Completion Rates- 2003-04 to 2005-06



	2003-04	2004-05	2005-06	3-yr Avg
American Indian	64.6%	66.9%	67.4%	66.3%
White, Non-Hispanic	87.1%	88.5%	88.6%	88.1%
Overall	84.8%	86.2%	86.2%	85.7%

The Adequate Yearly Progress Graduation Rate

Graduation rate, defined as "the percentage of students who graduate from secondary school with a regular diploma in the standard number of years" (i.e., "on-time"), is the required additional indicator for public high schools in AYP determinations. Montana's U.S. Department of Education-approved high school graduation rate is an estimated cohort group rate based on the method recommended by the NCES. Public high schools must have a graduation rate for the "All Students Combined" subgroup of at least 80% or make improvement towards this goal to meet this indicator. Montana's graduation rate is calculated using the formula in the box to the right.

AYP Graduation Rate Formula

Graduation Rate = $g_t / (c_t + g_t + d^{12}{}_t + d^{11}{}_{(t-1)} + d^{10}{}_{(t-2)} + d^{9}{}_{(t-3)})$

Where:

g= number of graduates receiving a standard high school diploma in four years or less (from the time enrolled in the 9th grade) or had an IEP allowing for more than four years to graduate.
c= completers of high school by other means
t= year of graduation
d= dropouts
12, 11, 10, 9 = class level

Example:
The 2005-06 Graduation Rate for Montana Public High Schools = 10,179 "On-time" Graduates for Class of 2006 divided by (1,689 students dropped out over four years plus 154 Not "On-time" Graduates for the Class of 2006 plus 10,179 "On-time" Graduates for the Class of 2006) multiplied by 100 = 84.7 %

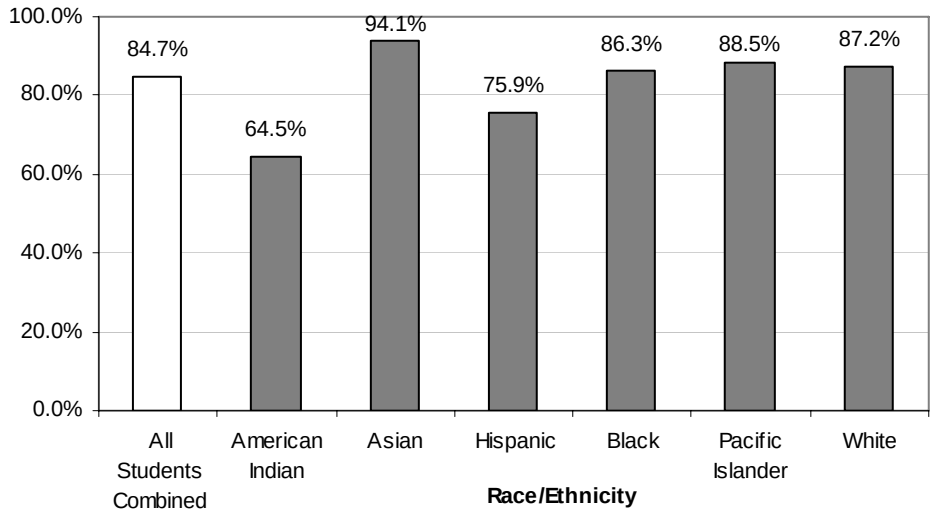
Analysis of AYP Graduation Rates

- ✓ The Class of 2005 AYP Graduation Rate for "All Students Combined" was 84.7% (see Table 8 and Figure 18 on following page).
- ✓ Disaggregated graduation rates are not used for determinations on this indicator; however, for the Class of 2006 the American Indian graduation rate was considerably lower than any of the subgroups. Therefore, schools with predominantly American Indian enrollment may find it more difficult to meet the 80% percent goal.
- ✓ Although graduate and dropout data for the 2005-06 school year has been collected by the OPI, individual school and district AYP determinations for the 2006-07 school year which use these data will not be made until the Summer of 2007.

Table 8
Montana Public High School AYP Graduation Rate for the Class of 2006

Subgroups	Dropouts					Graduates 2005-06		AYP Graduation Rate
	Grade 9 2002-03	Grade 10 2003-04	Grade 11 2004-05	Grade 12 2005-06	4-yr Dropout Total	Not On-time or GED	On-time	
All Students Combined	**337**	**447**	**444**	**461**	**1,689**	**154**	**10,179**	**84.7%**
American Indian	140	111	91	71	413	24	793	64.5%
Asian	0	3	1	3	7	1	128	94.1%
Hispanic	15	19	14	10	58	5	198	75.9%
Black	0	1	0	6	7	0	44	86.3%
Pacific Islander	0	0	2	0	2	1	23	88.5%
White	182	313	336	371	1,202	123	8,993	87.2%

Figure 18: Montana Public High School AYP Graduation Rates for All Students Combined and Race/Ethnicity (School Year 2005-06)



What Helps Prevent Students from Dropping Out?

Several studies have identified effective strategies to prevent students from leaving high school before receiving a diploma (NEGP, 2000). Some of those strategies include:

- Providing intensive intervention through smaller alternative middle and high schools.
- Focusing on changing the classroom experience through professional development to improve curriculum and instruction rather than focusing on dropout prevention services.
- Mentoring and tutoring by supportive adults and peers.
- Evaluating the impact of policies, practices, and structures on all students.
- Providing collective support to school and student needs through community and family collaboration.

Final Note

Policy implications that were identified by research studies as critical to the effectiveness of dropout intervention strategies included:

- The choice of teachers is more important than the choice of curriculum.
- The high school level may be too late to begin implementing intervention strategies.
- Data is needed to design appropriate strategies to prevent students from dropping out (NEGP, 2000).

The goal of gathering dropout information is to identify where and when students drop out of school and to use this knowledge to help keep students in school.

References

Lewis, Anne C. (2000). Dropouts from the K-12 public school system. *The NEGP Monthly, Vol. 2, No. 19 (p. 1-2).* August, 2000. Retrieved February 5, 2004, http://www.negp.gov/issues/issu/monthly/0800.pdf

Lewis, Anne C. (2001). Graduation rates up, down, and all around the issues. *The NEGP Monthly, Vol. 2, No. 25 (pp. 1).* February, 2001. Retrieved February 5, 2004, http://www.negp.gov/issues/issu/monthly/0201.pdf

Montana Office of Public Instruction. *Montana Graduate and Dropout Data Collection Handbook, (p.i),* September 2006, http://www.opi.mt.gov/PDF/ADC/FY07/MTHSComDropoutManual.pdf

U.S. Department of Education, National Center for Education Statistics (1998). The Condition of Education 1998, (NCES Publication No. 98–013), by John Wirt, Tom Snyder, Jennifer Sable, Susan Choy, Yupin Bae, Janis Stennett, Allison Gruner, and Marianne Perie. Washington, DC: U.S. Government Printing Office.

U.S. Department of Education, National Center for Education Statistics. (2005). Digest of Education Statistics, 2004, (NCES Publication No. 2005-034), by Thomas D. Snyder and Charlene M. Hoffman. Washington, DC: U.S. Government Printing Office.

U.S. Department of Justice, Office of Justice Statistics. (2003, January). Education and Correctional Populations, (NCJ Publication No. 195670). Retrieved February 5, 2004, http://www.ojp.usdoj.gov/bjs/pub/pdf/ecp.pdf

U.S. Department of Labor, Bureau of Labor Statistics. (2005). Current Population Survey. Annual Average Data. Employment Status of the civilian noninstitutional population 25 years and over by educational attainment, sex, race, and Hispanic origin. Retrieved January 22, 2007, http://www.bls.gov/cps/cpsaat7.pdf

Additional Dropout Resources on the Web

National Center for Education Statistics- http://www.nces.ed.gov/

National Dropout Prevention Center/Network- http://www.dropoutprevention.org/

U. S. Census Bureau- http://www.census.gov/index.html